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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,871	03/12/2004	David A. Pintsov	11JN-123385	6131

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EXAMINER

RASHID, DAVID

ART UNIT	PAPER NUMBER
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2609

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/799,871

Applicant(s)

PINTSOV ET AL.

Examiner

David P. Rashid

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 9/13/2004
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- ☐ Notice of Informal Patent Application
- ☐ Other: ____

DETAILED ACTION

All of the examiner's suggestions presented herein below have been assumed for examination purposes, unless otherwise noted.

Drawings

1. The drawings are objected to because of the following:
 - (i) FIG. 2, reference numeral 230 pertains to a step for ensuring successful/correct reads by the MICR reader after the batch/transaction segregation and makes no mention in the specification of an intelligent character recognition (ICR) until system 400 – suggest changing “ICR Correct?” in the state 230 triangle to “MICR Correct?”; and
 - (ii) FIG. 10, reference numeral 860 incorrectly directs – suggest switching “No” and “Yes”.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the

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renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:
 - (i) page 3, line 19 contains a misspelling – suggest changing "from a multiplicity off drawbacks." to "from a multiplicity of drawbacks."Appropriate correction is required.

Claim Suggestions

3. The following are suggestions to the claims:
 - (i) It is suggested to change "a series of known check templates" to "a series of known document templates" in claim 1, line 3 as has been assumed for examination purposes.
 - (ii) It is suggested to change "to each check template;" to "to each check template; and" in claim 10, line 6 as has been assumed for examination purposes.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 17, 18, 19, 20, 21 and 22** are rejected under 35 U.S.C. 102(b) as being anticipated by Stolfo (US 5668897 A).

Regarding **claims 1 and 9**, Stolfo discloses a method of automatically selecting document templates (“The present invention relates to the field of automated image processing...”, column 1, line 17.), comprising the steps of:

presenting a document image from an account (“At this point, according to the present invention, the check is scanned into the system for pattern recognition and electronic processing 58.”, column 17, line 56 in combination with FIG. 4.);

matching the document image against a series of known check templates from the account (Referring to FIG. 4, regardless of whether there is an identifying code present within the check, the check itself undergoes multiprocessing tasks which include a background pattern

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determination 76 as well as a “codebook” reference match in further detail within FIG. 6. “The system optionally determines an error between the matched stored template.”, column 7, line 54.); and

producing confidence scores corresponding to the degree of similarity of the document image compared to each document template (“A match will be considered so long as the pixel range between the scanned image and the stored image is within some threshold λ .”, column 14, line 59.).

For clarification, Stolfo teaches two possibilities regarding high and low similarity thresholds for confidence score X (Case 1 will be assumed for examination purposes, though both are equally applicable):

Case 1 (the high and low similarity threshold = λ)

$0 \leq X < \lambda$	“above λ ”	(steps 112 or 108)
$X > \lambda$	“below λ ”	(step 118)

Case 2 (high similarity threshold = 0, low similarity threshold = λ)

$X = 0 = \text{MATCH}$	“above λ ”	(step 108)
$X > \lambda$	“below λ ”	(step 118)

Regarding **claims 2 and 3**, Stolfo discloses the method of claim 1, further comprising the step of matching the confidence scores with a predetermined high similarity threshold (Referring

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to FIG. 6, the check image undergoes the step of searching a database (106) in search for either a complete match (108), a match within tolerance (112), or a match of any combination of patterns (118). "The input image is deemed to be a match whenever the distance is less than a preestablished threshold (λ).", column 3, line 28. It can be inferred that a high similarity threshold is when the calculated distance is less than (considered "above" when negating) a pre-established λ (step 108 or 112).).

Regarding **claim 4**, Stolfo discloses the method of claim 1, further comprising the step of matching the confidence score with a predetermined low similarity threshold (The high similarity threshold as disclosed in Stolfo can also constitute a low similarity threshold also if any calculated λ value is greater than (considered "below" when negating) a pre-established λ as discussed above (step 118).).

Regarding **claim 5**, Stolfo discloses the method of claim 4, further comprising the step of creating a new document template for the account corresponding to the document image if the confidence score is below the predetermined low similarity threshold (FIG. 6, reference numeral 124 shows that a background of the check image below the pre-established λ value is compressed. In addition, "It is another object of the present invention to provide variable-size or scaled check images retained on storage media, including decompression by utilizing codebook code to render full color and faithful reproductions of archived check images.", column 11, line 42, and thus it can be inferred that if the check image in question has been compressed into the

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memory for future decompression when exerting the algorithm, a new document template for the account has been produced.).

Regarding **claim 6**, Stolfo discloses the method of claim 4, further comprising the step of applying a partial layout comparison to the image and the closest matching template if the confidence score is above the low similarity threshold (Other than the background pattern template comparison as discussed above, FIG. 4 shows a signature comparison as well. Because of these two separate databases and comparisons, the background pattern template comparison (having FIG. 6 in more detail) can be considered a partial layout comparison of the check as a whole. It has already been discussed above that if the confidence score and the low similarity threshold is equivalent to the high similarity threshold (Case 1), being above the low similarity threshold is equivalent to the high similarity threshold range as already discussed in claim 3.).

Regarding **claim 7**, Stolfo discloses the method of claim 6, further comprising the step of providing results of the partial layout comparison including a list of image parts and a corresponding confidence score for each image part (Other than the background pattern template comparison as discussed above, FIG. 4 shows a signature comparison as well. "In one embodiment according to the present invention, the payor's signature on the check 50 is verified for authenticity by comparing it with a database of signatures 84 including a representation of the signature of the drawer. If the signature does not match a corresponding signature in the database 86, the bank operator needs to be informed for manual verification and the possibility of a

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possible fraudulent check 88.”, column 26, line 66. It is inherent that comparing a signature to signatures in a database requires some threshold or confidence score.).

Regarding **claim 8**, Stolfo discloses the method of claim 7, further comprising the step of creating one or more exclusion zones corresponding to image parts that exhibit a low confidence score (The matching of the check background and signature to the databases within a pre-established threshold will inherently create “exclusion zones” as shown in FIG. 4. For example, take element 86 to determine whether a valid signature match is present or not. The exclusion zone in this case would be element 88, wherein the method informs the operator of a possible fraudulent check if the signature does not match within a pre-established threshold. It has been interpreted by the examiner that an exclusion zone is any action taken if the image part of the check does not match within a pre-established threshold.).

Regarding **claim 9**, claim 9 recites identical features as in claim 1. Thus, arguments equivalent to that presented above for claim 1 are equally applicable to claim 9.

Regarding **claim 10**, claim 10 recites identical features as in claims 1, 2, 4, and 9. Thus, arguments equivalent to that presented above for claims 1, 2, 4 and 9 are equally applicable to claim 10.

Regarding **claim 11**, claim 11 recites identical features as in claim 3. Thus, arguments equivalent to that presented above for claim 3 is equally applicable to claim 11.

Regarding **claim 12**, claim 12 recites identical features as in claim 5. Thus, arguments equivalent to that presented above for claim 5 is equally applicable to claim 12.

Regarding **claim 13**, claim 13 recites identical features as in claim 6. Thus, arguments equivalent to that presented above for claim 6 is equally applicable to claim 13.

Regarding **claim 14**, claim 14 recites identical features as in claim 7. Thus, arguments equivalent to that presented above for claim 7 is equally applicable to claim 14.

Regarding **claim 15**, claim 15 recites identical features as in claim 8. Thus, arguments equivalent to that presented above for claim 8 is equally applicable to claim 15.

Regarding **claims 16 and 22**, claims 16 and 22 recites identical features as in claims 1, 2, 4 and 9. Thus, arguments equivalent to that presented above for claims 1, 2, 4 and 9 are equally applicable to claims 16 and 22 in addition to performing the method using a computer program and machine readable instructions as disclosed: "Thus, the invention includes, as a feature, the creation and maintenance of a codebook library of scanned check information, in a suitable storage form, e.g. actual image or compressed image data of various resolutions, that can be used to regenerate the actual image data, through the use of an algorithm executed by a computer or a series of mathematical equations that can compare the features and relationships (e.g. geometric) between the codebook and the actual regenerated image.", column 9, line 3.

Claim 16 is also rejected as being anticipated by the first ever written computer program comprising machine readable instructions (all language after the word “for” is strictly intended usage if one desires to carry them out on the computer).

Regarding **claim 17**, claim 17 recites identical features as in claim 3. Thus, arguments equivalent to that presented above for claim 3 is equally applicable to claim 17.

Regarding **claim 18**, claim 18 recites identical features as in claim 5. Thus, arguments equivalent to that presented above for claim 5 is equally applicable to claim 18.

Regarding **claim 19**, Stolfo discloses the computer program of claim 16, further comprising machine readable instructions for applying a partial layout comparison to the document image and the closest matching document template if the confidence score is above the low similarity threshold and below the high similarity threshold (FIG. 6 again shows the background portion of the check being compared to database templates (partial layout comparison) for both the low and high similarity threshold comparisons against the confidence score. Arguments equivalent to that presented above for claims 3 and 5 is equally applicable to claim 19 since the low and high similarity threshold comparisons are equivalent in Case 1.).

Regarding **claim 20**, claim 20 recites identical features as in claim 7. Thus, arguments equivalent to that presented above for claim 7 is equally applicable to claim 20.

Regarding **claim 21**, claim 21 recites identical features as in claim 8. Thus, arguments equivalent to that presented above for claim 8 is equally applicable to claim 21.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David P. Rashid whose telephone number is (571) 270-1578. The examiner can normally be reached on 7:30 - 17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Werner can be reached on (571) 272-7401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


BRIAN WERNER
SUPERVISORY PATENT EXAMINER

David P Rashid
Examiner
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